REMARKS

The present application was filed on October 23, 2003 with claims 1-37. Claims 1, 17, 29-31 and 37 are the independent claims.

In the final Office Action, the Examiner now: (i) rejects claims 1-35 and 37 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0208120 (hereinafter "Shenoi") in view of newly-cited U.S. Patent Publication 2004/0208120 (hereinafter "Borella"); and (ii) rejects claim 36 under 35 U.S.C. §103(a) as being unpatentable over Shenoi in view of Borella in further view of U.S. Patent Application Publication No. 2004/0003080 (hereinafter "Huff").

In this response, Applicants traverse the various §103(a) rejections for at least the following reasons.

With regard to the §103(a) rejection of claims 1-35 and 37, Applicants assert that the cited combination fails to teach or suggest each and every limitation of claims 1-35 and 37 as alleged.

Pending independent claim 1 recites a method of serving data to a plurality of clients in a client-server environment, comprising the steps of: providing a plurality of versions of given data in which at least two versions of the given data have different overheads associated therewith; assigning individual clients to one of a plurality of quality-of-service classes; and satisfying requests so that a client belonging to a high quality-of-service class is given preferential access to data versions which require higher overheads to serve. Pending independent claims 17, 29-31 and 37 recite certain similar limitations, as well as other limitations. Advantageously, the claimed invention provides that clients belonging to higher quality of service classes may be given preferential access to higher quality content (i.e., in many cases, higher quality content requires more overhead to serve). This is accomplished, as recited, by providing a plurality of versions of data in which at least two versions have different overheads associated therewith.

In rejecting independent claims 1, 17, 29-31 and 37 based on the combination of Shenoi and the newly-cited Borella, the Examiner cites paragraph [0089] of Shenoi as allegedly teaching the claimed step of assigning individual clients to one of a plurality of quality-of-service classes. Paragraph [0089] of Shenoi states:

> [0089] A physical bit-stream can be used to carry multiple PVCs, thereby implementing a statistical multiplexing arrangement. ATM is well suited for QoS differentiation and it is common to assign different service classes to different PVCs. For example, the acronyms CBR, VBR-RT, VBR, ABR are used. CBR, for "constant bit rate" is the highest service class and is appropriate for. carrying (substantially synchronous) bit-streams, such as DS0s and DS1s across an ATM network. Next is VBR-RT for "variable-bit-rate-real-time", suitable for carrying services like voice (substantially real-time, but may have "gaps" associated with silence as well variable bit-rate encoding associated with compression schemes such as variable-bit-rate-ADPCM). VBR (variable bit-rate) and ABR (available bit-rate) classes are generally used for data ("Low" QoS streams as defined in this document).

Nowhere does this paragraph nor any other paragraph of Shenoi teach or suggest assigning individual clients to one of a plurality of quality-of-service classes. Shenoi only states that "it is common to assign different service classes to different PVCs." As is defined in paragraph [0087] of Shenoi, PVCs are "Permanent Virtual Circuits." Thus, PVCs are not clients. Therefore, there is no teaching or suggestion of assigning individual clients to one of a plurality of quality-of-service classes, as claimed.

Similarly, in rejecting independent claims 1, 17, 29-31 and 37 based on the combination of Shenoi and the newly-cited Borella, the Examiner cites paragraph [0117] of Shenoi as allegedly teaching the claimed step of satisfying requests so that a client belonging to a high quality-of-service class is given preferential access to data versions which require higher overheads to serve. Paragraph [0117] of Shenoi states:

> [0117] In such existing architectures, differentiated services are provided using IP protocol suites such as DiffServ. That is, packets are assigned priority levels and "high priority" packets are given preferential treatment. An extension of this architecture utilizes time, typically traceable to UTC (Universal Coordinated Time, the global standard) or GPS (time associated with the Global Positioning Satellite system, which is also available worldwide), to define transmission schedules. Such scheduling guarantees a time window for high priority packets.

Nowhere does this paragraph nor any other paragraph of Shenoi teach or suggest satisfying requests so that a client belonging to a high quality-of-service class is given preferential access to

data versions which require higher overheads to serve. Shenoi only states that "packets are assigned priority levels." Again, since there is no disclosure that individual clients are assigned to one of a plurality of quality-of-service classes in Shenoi, then there can be no disclosure that requests are satisfied so that a client belonging to a high quality-of-service class is given preferential access to data versions which require higher overheads to serve. The fact that packets are assigned to priority levels in Shenoi has nothing whatsoever to do with assigning individual clients to one of a plurality of quality-of-service classes, and satisfying requests so that a client belonging to a high quality-of-service class is given preferential access to data versions which require higher overheads to serve, as claimed.

In rejecting independent claims 1, 17, 29-31 and 37 based on the combination of Shenoi and the newly-cited Borella, the Examiner cites column 6, lines 21-34 of Borella to suggest that the claim limitation of providing a plurality of versions of given data in which at least two versions of the given data have different overheads associated therewith is taught therein. However, column 6, lines 21-34, of Borella says nothing whatsoever about different overheads associated with two versions of the given data, as claimed, but rather determines how much "original content" to send from the serve to the user computer based on a "determined network latency-L," see columns 5 and 6. Thus, Borella makes no determination regarding overheads to serve a version of the given data but rather simply concerns itself with the transfer time (e.g., using "ping" packets) between the server and the user computer. Determining transfer time does not constitute determining overhead to serve a version.

For at least the above reasons, the Shenoi/Borella combination fails to teach or suggest each and every limitation cited in independent claims 1, 17, 29-31 and 37.

Regarding the dependent claims of the present application, it is asserted that they are patentable over the cited references not only due to their dependence of respective ones of the above-mentioned independent claims, but also because such claims recite separately patentable subject matter.

Dependent claims 2 and 18 recite the overhead to serve a version is correlated with a quality of the version. For example, the high overhead version is typically of higher quality than the low

overhead version (Specification, page 6, lines 7-8). Since Shenoi does not disclose provision of two versions of the given data, paragraph [0044] of Shenoi (in combination with Borella) does not disclose the recited limitations.

Dependent claims 3 and 19 recite the plurality of versions comprise images of different resolutions and clients belonging to a high quality-of-service class are given preferential access to higher resolution images. Neither Shenoi nor Borella teaches clients belonging to quality-of-service classes.

Dependent claims 4 and 20 recite the quality of a version is correlated with a processing time required to create the version. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0022] of Shenoi (in combination with Borella) does not disclose the recited limitations.

Dependent claims 5 and 21 recite the overhead to serve a version is correlated with how current the version is. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0106] of Shenoi (in combination with Borella) does not disclose the recited limitations.

Dependent claims 6 and 22 recite in response to a system load exceeding a threshold, satisfying a higher percentage of requests from clients belonging to a lower quality-of-service class with a version requiring lower overhead to serve. Since Shenoi does not disclose provision of two versions of the given data, paragraph [0093] of Shenoi (in combination with Borella) does not disclose the recited limitations.

Regarding dependent claims 7 and 23, since Shenoi does not disclose provision of two versions of the given data, paragraph [0073] of Shenoi (in combination with Borella) does not disclose the recited limitations.

With regard to claims 8-11 and 24-27, since Shenoi does not disclose provision of two versions of the given data, paragraphs [0089] through [0092] of Shenoi (in combination with Borella) do not disclose the recited limitations.

Claims 12 and 28 recite a client request is routed using at least one of an identity of the client, a quality of content, a load on at least one server, a data distribution on at least one server, and a capacity of at least one server. Since Shenoi does not disclose provision of two versions of the

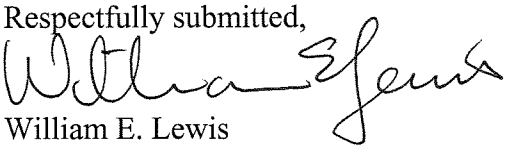
given data, paragraph [0028] of Shenoi (in combination with Borella) does not disclose the recited limitations.

With regard to claims 13, 14, 15 and 16, since Shenoi does not disclose provision of two versions of the given data, paragraphs [0035] and [0089] of Shenoi (in combination with Borella) do not disclose the recited limitations.

Regarding the rejection of claim 36 based on Shenoi, Borella, and Huff, Applicants assert that said limitations are patentable for at least the reasons given above. Huff fails to remedy the above deficiencies.

In view of the above, Applicants believe that claims 1-37 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejections.

Respectfully submitted,



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